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Individual Disability Insurance Claim Incidence Study

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by

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Report

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Individual Disability Insurance Claim Incidence Study

by

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The University of Texas at Austin, 2010

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A Claim incidence study for Individual Disability Insurance was conducted for study period from 2004 through 2007. Incidence was measured by count and amount and was compared with its 2007 EVM assumption and with standard industry tables 1985 CIDA. Generally, incidence rates are higher by amount than by count. This analysis and discussion focus on the experience by amount since this measure more closely reflects the financial impact. This report is to determine which assumption will be used going forward.

Results have been provided for each calendar year within the study period. Further, results by significant blocks of business, elimination period, benefit period, CIDA occupation class and geographic location have been summarized in the body of the report. Additional details are included in the Appendices. In the report, the name of the insurance company and any other revealing information are suppressed due to confidentiality and sensitivity of the nature of these data.

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Glossary

Key glossaries are listed below and other important terms are defined in the context:

--*Incidence or incidence rate*: The number of new cases per population in a given period of time. In the context of this report, incidence means the occurrence of new claims among insureds, either as a count or as a rate.

--*EVM*: Abbreviation for Earned Value Management, a project management technique for measuring project progress in an objective manner. EVM combines measurements of scope, schedule, and cost in a single integrated system and therefore provides a much more comprehensive overview of project progressing. Particularly, its implementation in insurance business can indicate and forecast future cost or claim loss for insurers.

--*SOA*: Society of Actuary, a professional organization for actuaries based in North America.

--*85 CIDA*: Here refers to 1985 Credit Disability Mortality Table or 85 CIDA Table. The table can be found at SOA website: http://www.soa.org/professional-interests/technology/tech-table-manager.aspx

--*Elimination Period*: Also called Waiting Period, is the period of time after an insured incurs a covered loss when the insured is contractually ineligible to receive payments (like monthly disability income) that s/he would otherwise be entitled to under the policy.

--*A/E*: The ratio of Actual versus Expected. It is often used to indicate how well the assumption models the reality. A 100% A/E indicates a perfect projection or modeling of the reality.

--*COLA*: Abbreviation for Cost of Living Adjustment or cost-of-living allowances. In the context of disability income insurance, COLAs usually are intended to adjust for increases in the cost of living over *time*, to maintain the purchasing power of the disability income that an insured receives as inflation erodes the value of his/her monthly benefit payments.

Introduction

First of all, what is insurance?

> In law and economics, insurance is a form of risk management primarily used to hedge against the risk of a contingent, uncertain loss. Insurance is defined as the equitable transfer of the risk of a loss, from one entity to another, in exchange for payment. An insurer is a company selling the insurance; an insured, or policyholder, is the person or entity buying the insurance policy. The insurance rate is a factor used to determine the amount to be charged for a certain amount of insurance coverage, called the premium. The transaction involves the insured assuming a guaranteed and known relatively small loss in the form of payment to the insurer in exchange for the insurer's promise to compensate (indemnify) the insured in the case of a loss. The insured receives a contract, called the insurance policy, which details the conditions and circumstances under which the insured will be compensated. [1]

There are various types of insurance, such as auto insurance, home insurance, health insurance and accident, sickness and unemployment insurance among others. In this report, we will discuss disability insurance, one example of accident, sickness and unemployment insurance. Disability Insurance, sometimes named DI or disability income insurance, insures the beneficiary's income against the risk that the insureds will not be able to work and therefore earn income when disabled. It also includes paid sick leave, short-term disability benefits, and long-term disability benefits. [2] According to a report

issued by Public Information Office of U.S. Census Bureau in November 2008, over 51 million Americans are classified as disabled, representing 18 percent of the population and in the US, a disabling accident occurs every second. [3]

Disability insurance can also be divided into different types according to naming conventions, such as individual disability insurance, group disability insurance, key person disability insurance and business overhead expense disability insurance etc. This paper examines individual disability insurance policies only. Those who desire disability coverage may purchase their own policies on the open exchange market. Different benefits for individual coverage and their corresponding premiums vary considerably between different companies, for individuals in different occupations, and by State and Country. In general, insurance companies charge policyholders more for policies that provided more monthly benefit, pay the benefit for a longer period of time, and start payments for benefits more quickly following a disability. Premiums also tend to be higher for policies that provide coverage in broader terms, meaning the policy would pay benefits in a wider variety of circumstances. [4]

Then, what is insurance business model and how it works? Insurers' business model is quite simple. The business model is to collect more in premium and investment income than is paid out in losses or claims, and to also offer a competitive price which consumers will accept. [1] Profit can be described to a simple equation:

Profit = earned premium + investment income - incurred loss - underwriting expenses.

Underwriting expenses are the cost of the operations by which insurers measure and select the risks to insure and decide the rate premium to charge for accepting the risks.

Incurred loss mainly refers to insurance claims. Claims and loss handling is the materialized utility of insurance; it is the actual "product" paid for. Claims may be filed by insureds directly with the insurer or through brokers or agents. [1]

> In general, the insurance claim is filed with a local representative of the insurance company. This agent becomes responsible for investigating the specific details of the insurance claim and negotiating the payment from the main insurers. Many times a recognized authority (doctor, repair shop, building contractor) can file the necessary insurance claim forms directly with the insurance company. However, sometimes the policy holder may not want to file an actual insurance claim if the damage is minor or another party has agreed to pay out-of-pocket for their mistake. [5]

In the case of individual disability insurance, insurance company may require a signed affidavit by a licensed doctor to prove the insureds are indeed disabled and therefore qualified for the coverage described in their insurance policies. However, some insurance claims may not be recognized by the insurance company for several possible reasons. For example, if a claimant's premiums have not been paid in full or often referred as policy lapsed, the policy itself may not be active. Or possibly another insurance company may have already agreed to pay for the damages listed in the claim. This happens quite often in automobile accidents where one party is held responsible. [5] Another reason an insurance claim may be rejected is that the loss (incident) does not fall under covered conditions. Most insurance policies spell out specific areas which qualify

for benefits. If the accident or damage claim was caused by carelessness or an unavoidable "Act of God", the insurance company has the right to withhold payments. [5]

Next, what is an incidence study? An incidence study is a study that examines the frequency and severity of insured perils and the expected average payout resulting from these perils. An insurance company will therefore collect historical claim loss data, bring the loss data to a present value and compare these prior losses to the premium collected in order to assess rate adequacy [1] and in turn the pricing models. This paper focuses on studying the historical loss data of an actual but anonymous insurance company. The paper compares the company's loss data with standard industrial tables as well as with the company's own assumptions. The major contribution of this paper is to determine which assumptions should be adopted for the years to come. Secondarily, this study may lead the insurer to possibly update its current pricing and valuation models. In particular, I find that the company's own EVM assumption is a better model to project its future claim experience both by count and by amount, compared with standard industrial tables which are widely used in insurance business.

Methodology

All data is from the company's Policy Handling and Settling Department (PHSD). The PHSD stores all of the data in centralized storage computer servers, but use different platforms or software to deal with various functions such as policy acquisition, claim processing and others. The raw claim data for 2004-2007 was extracted from the centralized servers using the claim processing software called "Bulk" and then analyzed using Excel to get the summary of results shown in the results section.

Each year, an EVM assumption (a comprehensive assumption to project future claim cost, more details can be found in glossary) was made based on previously known data and existing valuation models. For example, 2007 EVM assumption was established using all the data preceding Year 2007. Once the claim data was realized for 2007, a summary of results were then compared with 2007 EVM assumptions and in turn possibly evaluated to update the existing valuation models for making 2008 EVM. In this report, the claim count and amount from 2007 EVM assumption was used as baseline and the actual claim data was divided by 2007 EVM to get the percentages in Table 1 and 2. And similarly, the claim data from 1985 CIDA table (an industrial standard Credit Disability Morbidity table widely used by insurance companies) was used as baseline, and the actual and EVM claim data was divided by 1985 CIDA table to get the corresponding percentages in Table 3. All other Tables and Figures used 1985 CIDA and 2007 EVM as baselines and compared with the actual claim loss data.

How is reporting lag adjusted? Lag usually refers to the time interval between the date a service is rendered or an item is supplied and the date a service or item is processed and paid. In the case of insurance claim, there often times are cases that a claim reporting lag exists between the date a loss (incident) incurred and the date a claim is filed. This lag mainly arises due to administration of claim processing, claimants' negligence, paperwork preparation, or litigations in some cases, among other reasons. To account for claim reporting lags, lag factors were determined by comparing the reported date with the actual date of claims incidence for all claims reported from 2004 to 2007. A cumulative distribution was determined for lags of less than or equal to 12 months, 24 months, 36 months, and 48 months for each year from 2007 to 2004, respectively. I adopted the same methods described by Gamage paper (2007) [6] to calculate these completion (lag) factors.

These factors were used to gross up the actual claim counts and amounts. In any given year(s), we divided the reported count and amount of claim by the corresponding lag factors to get an estimation of actual gross-up data of count and amount of claim loss. All future analysis was based on the grossed-up data, since this would more appropriately reflect the true incidence. The lag factors are as follows:

2004 98.9%

2005 98.3%

2006 97.3%

2007 93.4%

Result

Comparison to 2007 EVM

Calendar year results were compared with the 2007 EVM assumption. Table 1 shows the unadjusted study results. The percentages by count and amount are derived in such a way that uses actual count and amount as numerators and Expected 2007 EVM count and amount as denominators, respectively. Exposure Count is the number of insureds. New claim count and amount means actual count and amount, respectively. More details are shown in Appendix I. As expected, incidence by amount is higher than by count indicating higher incidence for policies with larger benefit amounts. Except for 2005, incidence has generally decreased over the exposure period.

Table 1 - Unadjusted Assumed Results compared with 2007 EVM

Calendar Year	By Count	Exposure Count	New Claim Count	By Amount	Exposure Amount [1]	New Claim Amount
2004	60.8%	111,541	1,453	73.3%	163,521	1,443,081
2005	63.9%	102,901	1,321	76.1%	154,145	1,332,292
2006	60.0%	95,242	1,151	69.3%	145,085	1,166,262
2007	55.3%	85,682	951	60.7%	133,567	956,506
Total	60.2%	395,366	4,875	70.2%	596,318	4,898,142

[1] Values shown are in $1,000s.

Reporting lags

Our analysis of reporting lags indicates that claims are close to being fully reported by the second year after incurral. Within one year only 7% of claims have still not been reported, with a decrease to 3% by the second year after incurral. Lag factors can be found in the following Table 2 as well as in Appendix I.

Once results are adjusted for lags, we see that except for 2005, there has been a gradual decrease in incidence by count and amount since 2004. Adjusted results are displayed in Table 2 below. Incidence increased in 2005, but has steadily decreased since then. Appendix I contains the results with and without the adjustment for reporting lags.

Table 2 - Assumed Results adjusted for reporting lags compared with 2007 EVM

Calendar Year	Reporting Lag	By Count	Exposure Count	New Claim Count	By Amount	Exposure Amount [1]	New Claim Amount
2004	98.9%	61.5%	111,541	1,469	74.1%	163,521	1,458,600
2005	98.3%	65.0%	102,901	1,344	77.4%	154,145	1,355,758
2006	97.3%	61.7%	95,242	1,182	71.2%	145,085	1,198,743
2007	93.4%	59.2%	85,682	1,018	65.0%	133,567	1,023,749
Total		61.9%	395,366	5,013	72.2%	596,318	5,036,850

[1] Values shown are in $1,000s.

Comparison to 1985 CIDA by Major Blocks – Adjusted by Amount

In aggregate, the actual study produces lower incidence than the current EVM assumption. This indicated that the current EVM assumption consistently overestimated incidence rates over the study period and this result is expected since the company's EVM assumption is fairly conservative. However, there has been some variability in the experience by blocks (Here, a block is specifically referred to a group of policyholders holding similar types of insurance policies, which are acquired from another company). Summary level results are shown in Table 3 below. I used anonymous names such as AAA or BBB etc. to suppress the true names of blocks for the same reason-confidentiality of the data.

Table 3 – Calendar year claim by amount compared with 1985 CIDA adjusted for reporting lags by major blocks

	Year	Exposure Distribution % (1)	2007 EVM	Actual Claim
BBB	2004	13%	64.2%	58.3%
	2005			47.7%
	2006			58.2%
	2007			51.1%
	Full Study		**64.2%**	**54.0%**
AAA	2004	27%	64.2%	49.3%
	2005			54.6%
	2006			51.9%
	2007			46.6%
	Full Study		**64.2%**	**50.7%**
CCC	2004	5%	80.2%	51.6%
	2005			63.3%
	2006			62.9%
	2007			62.2%
	Full Study		**80.2%**	**59.3%**
DDD	2004	55%	71.7%	50.4%
	2005			51.0%
	2006			39.0%
	2007			36.2%
	Full Study		**71.7%**	**44.4%**
Total	2004	100%		51.2%
	2005			53.4%
	2006			49.1%
	2007			44.8%
	Full Study			**49.8%**

(1) Indicates the distribution by claim amount. Same meaning applied to Tables 4 through 7.

The AAA block increased in 2005, but has decreased since then. The BBB block has shown considerable variability over the study period. The CCC block increased significantly in 2005, but has shown slight decrease since then, while, except for a slight spike in 2005, the DDD block has shown consistent decrease in incidence throughout the study period. Additional details are provided in Appendix II.

Full Study results by Elimination Period (EP)

Incidence experience is higher for EP's > 90 days than for shorter EPs. This result is fairly consistent with those of the SOA's Individual Disability Experience Committee (IDEC) study which found that industry-wide incidence for longer EPs was higher than that for shorter EPs. Details are shown in Table 4 and Graph 1.

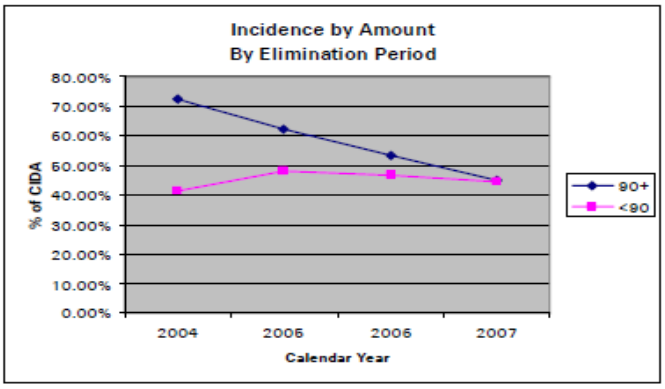
Table 4 - Study results by Amount by Elimination Period

EP	Dist [2] %	% CIDA	% EVM
90 +	67.2%	58.3%	84.1%
< 90	32.8%	44.9%	65.2%
Total		49.8%	72.2%

[2] based on exposure

EP is measured in Days.

Graph 1 - Calendar year results by Elimination Period



Full Study results by COLA

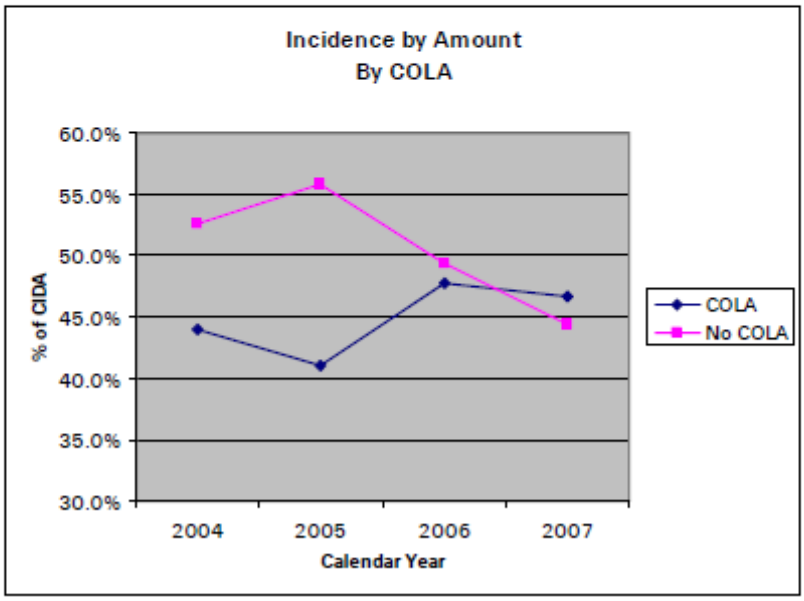
Analysis of differences in claim incidence between policies with and without the COLA benefit indicates that the richer indemnities with COLA have lower incidence than those without. This result is somewhat anomalous compared with those of the SOA's Individual Disability Experience Committee (IDEC) study which found the opposite. See the following Table 5 and Graph 2 for more details.

Table 5 - Study results by Amount by COLA

	Dist [2]	% CIDA	% EVM
COLA	23.5%	44.8%	64.4%
No COLA	76.5%	50.8%	73.7%
Total		49.8%	72.2%

[2] – based on exposure

Graph 2 - Calendar year results by COLA



Full Study results by CIDA Occupation Class

Here the Occupation Class is referred to the occupation of insureds. Four occupation classes are defined:

- Class 1: Executive and Professional
- Class 2: Clerical and Office
- Class 3: Light manual duties
- Class 4: Heavy manual duties

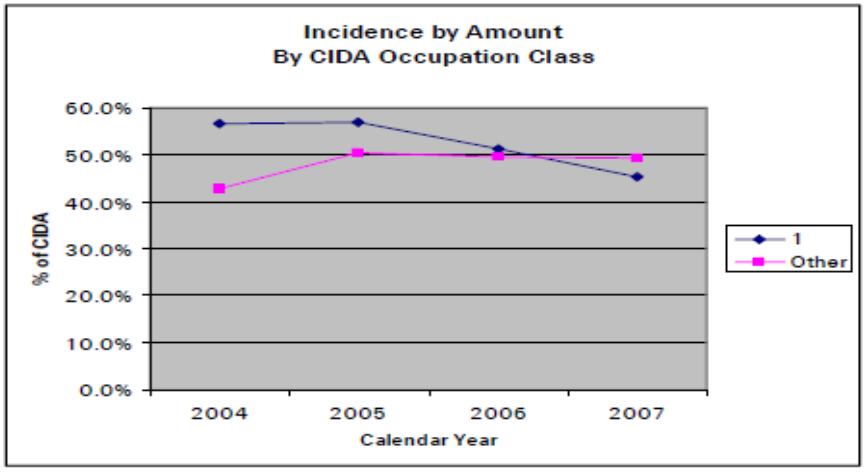
The study indicates slightly higher incidence for policies in Class 1 than other occupations. The divergence between the two sets of rates narrows each year, until 2007 when incidence for Class 1 is lower than the other classes.

Table 6 - Study results by Amount by CIDA Occupation Class

Occ Class	Dist [2] %	% CIDA	% EVM
Class 1	89.9%	52.7%	76.9%
Other	10.1%	47.7%	67.7%
Total		51.4%	74.4%

[2] based on exposure

Graph 3 – Calendar year results by CIDA Occupation Class



Full Study results by Geographic Location

Geographic location is defined as the residence addresses of the insureds. This incidence study indicates that Actual/Expected (A/E) claim incidence for California and Florida are 6-15% higher than all other states combined. This general trend is consistent with the IDEC result, where claim incidence for these states is 25-40% higher than all other states combined.

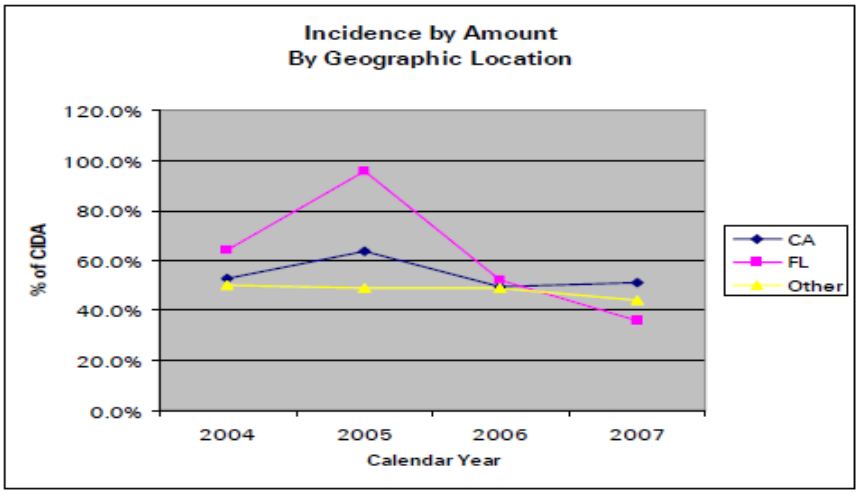
In general, incidence in Florida is higher than in California and is highest in 2005. Incidence for Florida appears to be decreasing over the study period. However in 2007, we notice that the incidence for Florida is significantly below that of the remainder of the block. This is largely due to the fact that Florida has longer reporting lags than the rest of the block.

Table 7 - Study results by Amount by Geographic Location

State	Dist [2] %	A/E - % CIDA	A/E - % EVM
FL	4.9%	64.8%	93.0%
CA	17.6%	55.9%	80.3%
All Other	77.5%	49.6%	72.1%
Total		51.4%	74.4%

[2] based on exposure

Graph 4 – Calendar year results by Amount by Geographic Location

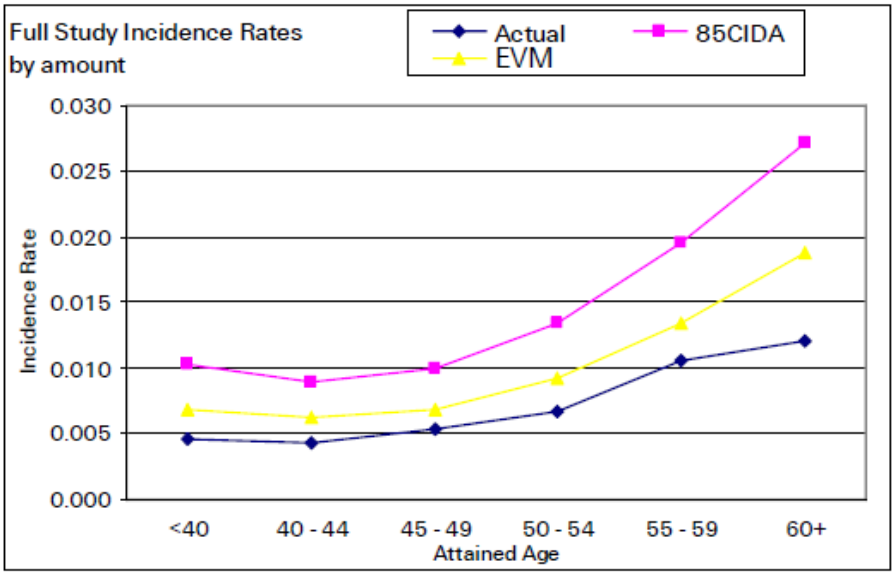


Full Study results by Attained Age

The actual-to-expected incidence rates as a percentage of CIDA and EVM are highest for the 55-59 age group (54% and 78.2%, respectively) in full study. In general the incidence rates follow the slope of the CIDA curve, except that results are flatter than CIDA in the older ages. These results are somewhat different than those of the IDEC study where rates decline after attained ages 30-39.

In addition, we have also observed that EVM assumptions model more accurately the actual incidence than 85 CIDA does, though consistently slightly higher than actual ones. This general trend again reflects the conservation of EVM assumption since all actual incidence rates for calendar years 2004-2007 are lower than those assumed by EVM. There is some fluctuation by calendar year, but this is the general trend in results. Calendar year details are included in Appendix III.

Graph 5 – Study results by Amount by Attained Age



Conclusion

In general, the incidence has gradually decreased from 2004 to 2007, except 2005. Year 2005 showed dramatic increase of incidence by both count and amount, and this is consistent with the fact that the company experienced several very high amount claims in 2005.

Further, results by significant blocks of business, elimination period, benefit period, CIDA occupation class, geographic location and attained age have all indicated the Actual-to-Expected Ratios (A/E) were much closer to 100% using 2007 EVM than using 1985 CIDA industrial standard tables. Therefore, I recommend using EVM as the best estimated assumptions going forward. And this study also suggests the possibility of updating our current EVM assumptions to less conservative extent, assuming we will not violate statutory regulations by doing such. This has to be carefully addressed to top executives of the company and needs to be confirmed by other actuarial tests and studies.

One drawback of this report is that we only looked at 4 year data (2004-2007) and therefore the results may be limited due to the short period of time. More comprehensive research spanning for a longer period of time might be needed to get more credible results.

Overall Results

APPENDIX I

Unadjusted

	By count						By amount							
	Exposure	Actual	Expected CIDA	Expected EVM	A/E CIDA	A/E EVM	Exposure (000)	Actual	Expected CIDA	Expected EVM	A/E CIDA	A/E EVM	Average exposure amt	Average claim amt
2004	111,541	1,453	3,425	2,390	42.4%	60.8%	163,521	1,443,081	2,848,269	1,969,673	50.7%	73.3%	1,466.02	993.17
2005	102,901	1,321	2,989	2,067	44.2%	63.9%	154,145	1,332,293	2,538,510	1,751,457	52.5%	76.1%	1,497.99	1,008.55
2006	95,242	1,150	2,775	1,916	41.4%	60.0%	145,085	1,166,262	2,440,493	1,683,708	47.8%	69.3%	1,523.33	1,014.14
2007	85,682	951	2,496	1,720	38.1%	55.3%	133,567	956,506	2,284,701	1,575,864	41.9%	60.7%	1,558.87	1,005.79
Full Study	395,366	4,875	11,686	8,093	41.7%	60.2%	596,318	4,898,142	10,111,973	6,980,702	48.4%	70.2%	1,508.27	1,004.75

Adjusted for Claim Reporting Lag

	By count						By amount							
	Exposure	Actual	Expected CIDA	Expected EVM	A/E CIDA	A/E EVM	Exposure (000)	Actual	Expected CIDA	Expected EVM	A/E CIDA	A/E EVM	Average exposure amt	Average claim amt
2004	111,541	1,469	3,425	2,390	42.9%	61.5%	163,521	1,458,600	2,848,269	1,969,673	51.2%	74.1%	1,466.02	993.17
2005	102,901	1,344	2,989	2,067	45.0%	65.0%	154,145	1,355,758	2,538,510	1,751,457	53.4%	77.4%	1,497.99	1,008.55
2006	95,242	1,182	2,775	1,916	42.6%	61.7%	145,085	1,198,743	2,440,493	1,683,708	49.1%	71.2%	1,523.33	1,014.14
2007	85,682	1,018	2,496	1,720	40.8%	59.2%	133,567	1,023,749	2,284,701	1,575,864	44.8%	65.0%	1,558.87	1,005.79
Full Study	395,366	5,013	11,686	8,093	42.9%	61.9%	596,318	5,036,850	10,111,973	6,980,702	49.8%	72.2%	1,508.27	1,004.80

Lag Factors

2004	98.9%
2005	98.3%
2006	97.3%
2007	93.4%

EVM Assumptions

AAA	0.642
CCC	0.802
DDD	0.717

Appendix II

Summary of Results by Amount

Overall Summary

	Exposure (000)	Actual	Expected CIDA	Expected EVM	A/E CIDA	A/E EVM	Actual Incidence	CIDA Incidence	EVM Incidence
2004	163,521	1,458,600	2,848,269	1,969,673	51.2%	74.1%	0.0089	0.0174	0.0120
2005	154,145	1,355,758	2,538,510	1,751,457	53.4%	77.4%	0.0088	0.0165	0.0114
2006	145,085	1,198,743	2,440,493	1,683,708	49.1%	71.2%	0.0083	0.0168	0.0116
2007	133,567	1,023,749	2,284,701	1,575,864	44.8%	65.0%	0.0077	0.0171	0.0118
Full Study	596,318	5,036,850	10,111,973	6,980,702	49.8%	72.2%	0.0084	0.0170	0.0117

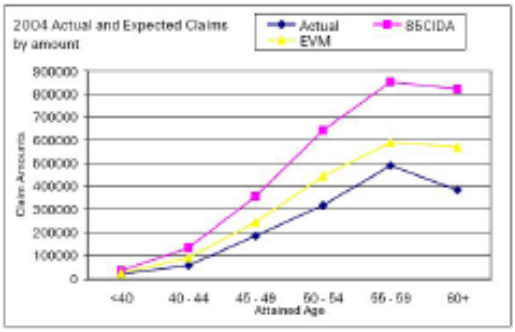
Appendix III

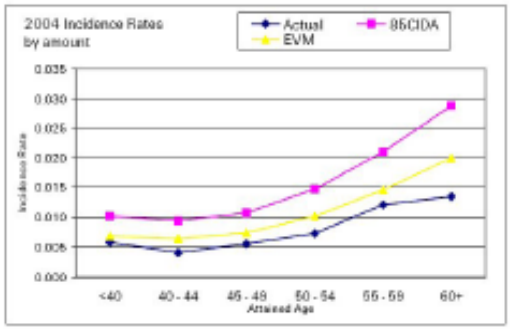
Amount Results by Attained Age - Adjusted for Claim Development Lag

2004

Attained Age	Exposure (000)	Actual	Expected CIDA	Expected EVM	A/E CIDA	A/E EVM
<40	3,432	19,857	34,986	23,543	56.8%	84.3%
40 - 44	14,242	58,361	133,830	91,919	43.6%	63.5%
45 - 49	33,195	185,246	358,064	246,363	51.7%	75.2%
50 - 54	43,860	318,337	644,240	444,513	49.4%	71.6%
55 - 59	40,510	490,906	863,288	591,604	57.6%	83.0%
60+	28,582	386,894	823,863	571,732	46.8%	67.6%
Total	163,521	1,458,800	2,848,289	1,969,673	51.2%	74.1%

Actual Incidence	CIDA Incidence	EVM Incidence
0.0058	0.0102	0.0069
0.0041	0.0094	0.0065
0.0056	0.0108	0.0074
0.0073	0.0148	0.0102
0.0121	0.0211	0.0146
0.0135	0.0288	0.0200
0.0089	0.0174	0.0120

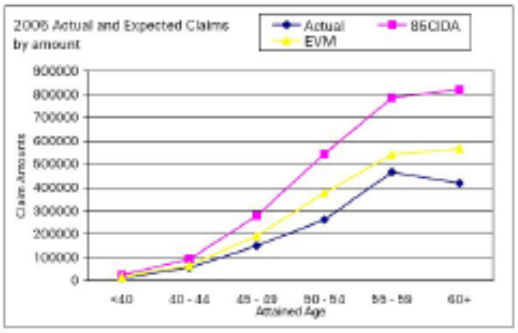


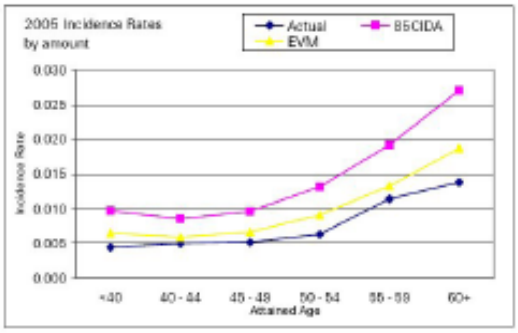


2005

Attained Age	Exposure (000)	Actual	Expected CIDA	Expected EVM	A/E CIDA	A/E EVM
<40	2,169	9,616	20,987	14,028	45.8%	68.6%
40 - 44	10,721	53,257	91,380	62,983	58.3%	84.6%
45 - 49	28,825	148,402	277,121	190,922	53.6%	77.7%
50 - 54	41,343	260,412	544,558	375,404	47.8%	69.4%
55 - 59	40,807	465,441	784,414	541,699	59.3%	85.9%
60+	30,281	418,629	820,050	566,421	51.0%	73.9%
Total	154,145	1,355,758	2,538,510	1,751,457	53.4%	77.4%

Actual Incidence	CIDA Incidence	EVM Incidence
0.0044	0.0097	0.0065
0.0050	0.0085	0.0059
0.0061	0.0096	0.0066
0.0063	0.0132	0.0091
0.0114	0.0192	0.0133
0.0138	0.0271	0.0187
0.0088	0.0165	0.0114

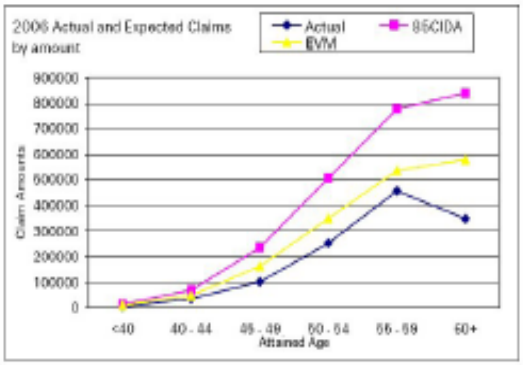


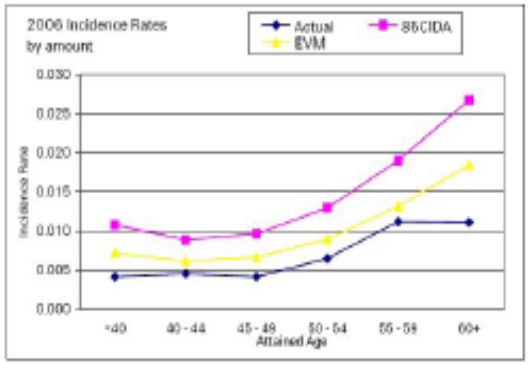


2006

Attained Age	Exposure (000)	Actual	Expected CIDA	Expected EVM	A/E CIDA	A/E EVM
<40	1,309	5,371	14,098	9,371	38.1%	57.3%
40 - 44	7,818	35,158	68,888	47,548	51.0%	73.9%
45 - 49	24,485	100,636	235,465	162,234	42.7%	62.0%
50 - 54	39,235	253,566	506,225	349,328	50.1%	72.6%
55 - 59	40,853	458,356	777,210	536,184	58.7%	85.1%
60+	31,385	347,757	838,608	579,043	41.5%	60.1%
Total	145,085	1,198,743	2,440,493	1,683,708	49.1%	71.2%

Actual Incidence	CIDA Incidence	EVM Incidence
0.0041	0.0108	0.0072
0.0045	0.0088	0.0061
0.0041	0.0098	0.0068
0.0065	0.0129	0.0089
0.0112	0.0190	0.0131
0.0111	0.0267	0.0184
0.0083	0.0168	0.0116

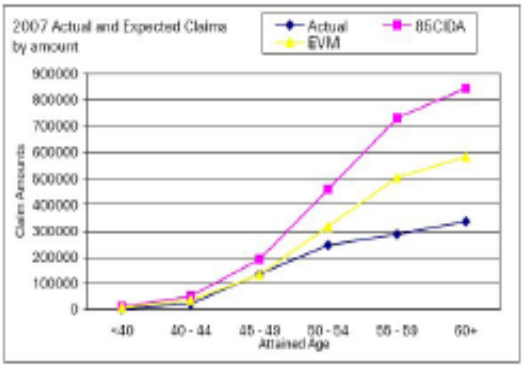


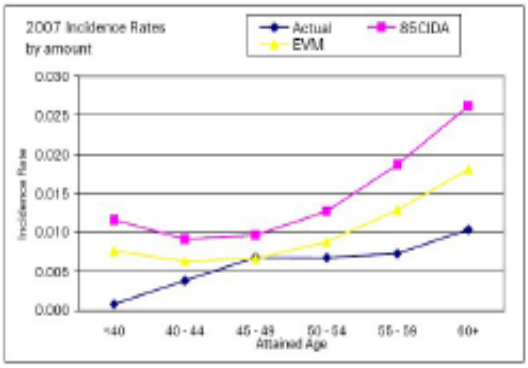


2007

Attained Age	Exposure (000)	Actual	Expected CIDA	Expected EVM	A/E CIDA	A/E EVM
<40	801	669	9,282	6,123	7.2%	10.9%
40 - 44	5,460	21,068	50,033	34,502	42.1%	61.0%
45 - 49	19,908	135,885	192,062	132,356	70.8%	102.7%
50 - 54	36,072	244,745	468,240	316,552	53.4%	77.3%
55 - 59	39,082	286,436	730,879	503,778	39.2%	56.9%
60+	32,244	334,956	844,205	582,554	39.7%	57.5%
Total	133,567	1,023,749	2,284,701	1,575,864	44.8%	65.0%

Actual Incidence	CIDA Incidence	EVM Incidence
0.0008	0.0116	0.0078
0.0039	0.0092	0.0063
0.0068	0.0098	0.0068
0.0068	0.0127	0.0088
0.0073	0.0187	0.0129
0.0104	0.0262	0.0181
0.0077	0.0171	0.0118

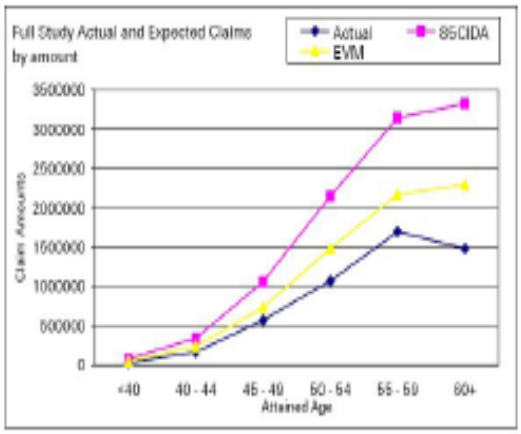


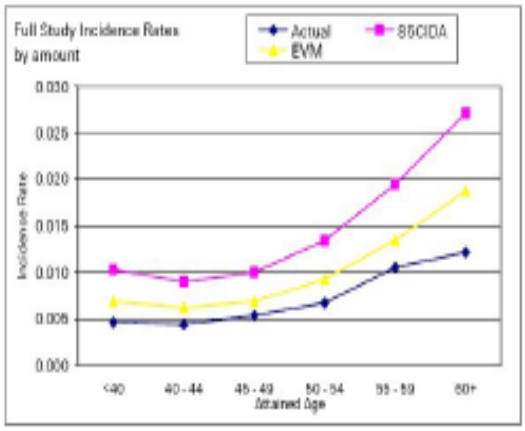


Full Study

Attained Age	Exposure (000)	Actual	Expected CIDA	Expected EVM	A/E CIDA	A/E EVM
<40	7,712	35,513	79,363	53,064	44.8%	66.9%
40 - 44	38,240	167,833	344,231	236,953	48.8%	70.8%
45 - 49	106,413	570,070	1,062,711	731,876	53.6%	77.9%
50 - 54	160,208	1,077,059	2,153,283	1,485,797	50.0%	72.5%
55 - 59	161,252	1,099,138	3,145,780	2,173,264	54.0%	78.2%
60+	122,492	1,487,236	3,326,624	2,299,750	44.7%	64.7%
Total	596,318	5,036,850	10,111,973	6,980,702	49.8%	72.2%

Actual Incidence	CIDA Incidence	EVM Incidence
0.0046	0.0103	0.0069
0.0044	0.0090	0.0062
0.0054	0.0100	0.0069
0.0067	0.0134	0.0093
0.0105	0.0195	0.0135
0.0121	0.0272	0.0188
0.0084	0.0170	0.0117





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